

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: To be assigned

Filing Date:

Applicant: Roger W. Engelbart et al

Group Art Unit: Unknown

Examiner: Unknown

Title: SYSTEMS AND METHODS FOR USING LIGHT TO
INDICATE DEFECT LOCATIONS ON A COMPOSITE
STRUCTURE

Attorney Docket: 7784-000696

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION

The patents, publications and other information requested to be considered by the Office (except unpublished U.S. patent applications) are listed on Form 1449 attached hereto.

II. COPIES

A. _____ Submitted herewith is a legible copy of (i) each U.S. patent application publication and U.S. and foreign patent; (ii) each publication or that portion which caused it to be listed; (iii) for each cross-referenced pending U.S. application listed below in Section IV, the application specification including the claims, and any drawing of the application which caused it to be listed including the claims directed to that portion; and (iv) all other information or that portion which caused it to be listed.

B. _____ Any patents, publications or other information which are listed on Form 1449 or on the copies of PTO-892, but which are not enclosed herewith, were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

U.S. Serial Number

U.S. Filing Date

C. ☒ Because the present application was/is being filed after June 30, 2003, no copies of the U.S. patents or U.S. patent application publications which are listed on the attached Form 1449 are enclosed pursuant to the waiver of 37 C.F.R. § 1.98(a)(2)(i). Any foreign patent documents or non-patent literature listed on the attached Form 1449 are enclosed herewith.

D. ☐ This is a PCT application in the entry of the National Phase in the United States. A copy of the International Search Report is attached for the Examiner's information. The documents listed on the International Search Report are listed on the attached Form-1449 for consideration by the Examiner and for listing on any patent resulting from this application. If the International Search Report was from the US, EPO, or JPO search authorities, copies of these references should have been supplied to the USPTO under the trilateral agreement and are believed to be in the file of the above-identified application. (MPEP 1893.03(g))

III. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

A. ☒ Except as may be indicated below in (B), all of the patents, publications or other information are in the English language (concise explanation not required).

B. ☐ A concise explanation of the relevance of each patent, publication or other information listed that is not in the English language is as follows (see 37 C.F.R. § 1.98(a)(3)):

1. ☐ See the attached foreign patent office communication from a counterpart foreign application.
2. ☐ English translations are provided.
3. ☐ Other:

C. ☐ The following additional information is provided for the Examiner's consideration.

IV. CROSS REFERENCE TO RELATED APPLICATION(S)

A. ☒ The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does(do) not waive the confidentiality provisions of 35 U.S.C. § 122.

<u>Serial No.</u>	<u>Filing Date</u>	<u>Art Unit</u>
10/068,735	February 6, 2002	Unknown
10/217,805	August 13, 2002	Unknown
US2002/0141632	October 3, 2002	Unknown
10/301,949	November 22, 2002	1774
10/628,691	July 28, 2003	2621
10/664,148	September 17, 2003	Unknown
10/726,099	December 2, 2003	2621
10/799,306	March 12, 2004	Unknown

V. THIS IDS IS BEING FILED UNDER

A. ☒ **37 C.F.R. § 1.97(b):** (check only one box)

1. ☒ within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.

2. ☐ within three months of the date of entry of the national stage as set forth in §1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.

3. ☐ before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e) below; or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).

4. ☐ before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.

B. ☐ **37 C.F.R. § 1.97(c):** (check only one box)

before the mailing date of either any Final Office Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution.

1. ☐ No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

2. ☐ See the certification below. No fee is required.

C. ☐ **37 C.F.R. § 1.97(d):**

after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.

1. ____ See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

VI. CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box)

The undersigned hereby certifies that:

A. ____ each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. 1.704(d) below in section VII, if applicable; or

B. ____ no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).

C. ____ Some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS.

VII. STATEMENT UNDER 37 CFR 1.704(d)

The undersigned hereby states that:

____ each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS.

VIII. PAYMENT OF FEES (check only one box)

A. ____ A check in the amount of \$180.00 is enclosed for the above-identified fee.

B. ____ Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 08-0750.

Respectfully submitted,

Dated: April 12, 2004

By: 
Mark D. Elchuk, No. 33,686

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

MDE/AGF/dmkd

FORM HDP-1449 (Based on Form PTO-1449) PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION (Use several sheets if necessary) Sheet 1 of 7	ATTORNEY DOCKET NO.	SERIAL NO.
	7784-000696	New Application
	APPLICANT	
	Roger Engelbart et al.	
	FILING DATE	GROUP
		Unknown

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.		3,879,245	04/22/1975	Fetherson, et al		
2.		4,064,534	12/20/1977	Chen et al.		
3.		4,548,859	10/22/1985	Kline et al		
4.		4,608,220	08/26/1986	Caldwell et al		
5.		4,693,678	09/15/1987	Von Volkli		
6.		4,699,683	10/13/1987	McCowin		
7.		4,760,444	07/26/1988	Nielson et al.		
8.		4,780,262	10/25/988	Von Volkli		
9.		4,790,898	12/13/1988	Woods		
10.		4,830,298	05/16/1989	Van Blunk		
11.		4,877,471	10/31/1989	McCowin et al		
12.		5,058,497	10/22/1991	Bishop et al.		
13.		5,337,647	08/16/1994	Roberts et al		
14.		5,439,549	08/08/1995	Fryc et al		
15.		5,450,147	09/12/1995	Dorsey-Palmateer		
16.		5,540,126	07/30/1996	Piramoon		
17.		5,651,600	07/29/1997	Dorsey-Palmateer		
18.		5,683,646	11/04/1997	Reilling Jr.		
19.		5,700,337	12/23/1997	Jacobs et al.		
20.		5,746,553	05/05/1998	Engwall		
21.		5,804,276	09/08/1998	Jacobs et al		
22.		5,814,386	09/29/1998	Vasiliev et al		
23.		5,871,117	02/16/1999	Protasov et al		

Examiner:	Date Considered:
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EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM HDP-1449 (Based on Form PTO-1449)

**PATENT AND TRADEMARK OFFICE
INFORMATION DISCLOSURE CITATION**

(Use several sheets if necessary)

Sheet 2 of 7

ATTORNEY DOCKET No.

7784-000696

SERIAL No.

New application

APPLICANT

Roger Engelbart et al

FILING DATE

GROUP

Unknown

U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
24.		5,963,660	10/05/1999	Koontz et al		
25.		5,979,531	11/9/1999	Barr et al		
26.		6,012,883	01/11/2000	Engwall et al		
27.		6,013,341	01/11/2000	Medvedev et al		
28.		6,045,651	04/04/2000	Kline et al		
29.		6,074,716	06/13/2000	Tsotsis		
30.		6,086,696	07/11/2000	Gallagher		
31.		6,112,792	09/05/2000	Barr et al		
32.		6,168,358	01/02/2001	Engwall et al		
33.		6,390,169	05/21/2002	Johnson		
34.		6,451,152	09/17/2002	Holmes et al		
35.		6,480,271	11/12/2002	Cloud et al		
36.		U.S. Patent Application S/N 10/068,735 entitled COMPOSITE MATERIAL COLLATION MACHINE AND ASSOCIATED METHOD FOR HIGH RATE COLLATION OF COMPOSITE MATERIALS	02/06/2002	Engelbart et al.		

Examiner:

Date Considered:

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FORM HDP-1449 (Based on Form PTO-1449) PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION (Use several sheets if necessary) Sheet 3 of 7	ATTORNEY DOCKET No.	SERIAL No.
	7784-000696	New application
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		Unknown

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
37.		U.S. Patent Application S/N 10/217,805 entitled SYSTEM FOR IDENTIFYING DEFECTS IN A COMPOSITE STRUCTURE	08/13/2002	Engelbart et al.		
38.		U.S. patent application No. 10/301,949 entitled PARALLEL CONFIGURATION COMPOSITE MATERIAL FABRICATOR		Engelbart et al		11/22/2002
39.		US2002/0141632 A1	10/03/2002	Engelbart et al.		
40.		U.S. Patent Application S/N 10/628,691 entitled SYSTEMS AND METHODS FOR IDENTIFYING FOREIGN OBJECTS AND DEBRIS (FOD) AND DEFECTS DURING FABRICATION OF A COMPOSITE STRUCTURE	07/28/2003	Engelbart, et al.		

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FORM HDP-1449 (Based on Form PTO-1449) PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION (Use several sheets if necessary) Sheet 4 of 7	ATTORNEY DOCKET NO.	SERIAL NO.
	7784-000696	New application
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		Unknown

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
41.		U.S. patent application No. 10/630,594 entitled COMPOSITE FUSELAGE MACHINE		Braun		07/28/2003
42.		U.S. Patent Application S/N 10/646,316 entitled UNIDIRECTIONAL MULTIHEAD FIBER PLACEMENT		New		08/22/2003
43.		U.S. Patent Application S/N 10/646,392 entitled AUTOMATED COMPOSITE LAY-UP TO AN INTERNAL FUSELAGE MANDREL		Engwall		08/22/2003

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FORM HDP-1449 (Based on Form PTO-1449) PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION (Use several sheets if necessary) Sheet 5 of 7	ATTORNEY DOCKET NO.	SERIAL NO.
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		Unknown

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
44.		U.S. Patent Application S/N 10/646,509 entitled MULTIPLE HEAD AUTOMATED COMPOSITE LAMINATING MACHINE FOR THE FABRICATION OF LARGE BARREL SECTION COMPONENTS		Johnson		08/22/2003
45.		U.S. Patent Application S/N 10/664,148; entitled COMPOSITE MATERIAL COLLATION MACHINE AND ASSOCIATED METHOD FOR HIGH RATE COLLATION OF COMPOSITE MATERIALS; divisional application of 10/068,735	09/17/2003	Engelbart, et al.		

Examiner:	Date Considered:
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FORM HDP-1449 (Based on Form PTO-1449)

**PATENT AND TRADEMARK OFFICE
INFORMATION DISCLOSURE CITATION**

(Use several sheets if necessary)

Sheet 6 of 7

ATTORNEY DOCKET NO.

7784-000696

SERIAL No.

New application

APPLICANT

Roger Engelbart et al

FILING DATE

GROUP

Unknown

U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
46.		U.S. Patent Application S/N 10/717,030 entitled METHOD OF TRANSFERRING LARGE UNCURED COMPOSITE LAMINTES		Johnson		11/18/2003
47.		U.S. Patent Application S/N 10/726,099 entitled SYSTEMS AND METHODS FOR DETERMINING DEFECT CHARACTERISTICS OF A COMPOSITE STRUCTURE		Engelbart et al		12/2/2003
48.		U.S. Patent Application S/N 10/799,306 entitled SYSTEMS AND METHODS FOR ENABLING AUTOMATED RETURN TO AND/OR REPAIR OF DEFECTS WITH A MATERIAL PLACEMENT MACHINE		Engelbart et al		03/12/2004

Examiner:

Date Considered:

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<p>FORM HDP-1449 (Based on Form PTO-1449)</p> <p>PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)</p> <p>Sheet 7 of 7</p>	ATTORNEY DOCKET NO.	SERIAL No.
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	Roger Engelbart et al	
	FILING DATE	GROUP
		Unknown

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date

FOREIGN PATENT DOCUMENTS							
Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes No	

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
49.		Sharp et al.; "Material Selection/Fabrication Issues for Thermoplastic Fiber Placement", Journal of Thermoplastic Composite Materials, Vol. 8; January, 1995, pg. 2-14
50.		http://www.cinmach.com/WolfTracks4_1/MTG_WT7.htm ; Premier I Features Lighter, Stronger All-Composite Fuselage, 3 pages
51.		http://www.cinmach.com/compnews/PressReleases/pr00-11.htm ; Raytheon Aircraft Orders Four More Fiber Cinnati Fiber Placement Systems for Industry's First Composite-Fuselage Business Jets, 2 pages
52.		http://www.rockymountaincomposites.com/wind_sys.htm ; Filament Winding, 2 pages

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